

1792A
EA-03-08
Lost Guiley

February 25, 2003

Concerned Citizen,

The Upper Willamette Resource Area of the Eugene District Bureau of Land Management has completed the Environmental Assessment (EA) and Finding of No Significant (FONSI) for the Lost Guiley commercial thinning timber sale located in Sections 27 and 35, T. 20 S., R. 1 W., Will. Mer.

You have expressed an interest in receiving copies of Environmental Assessments for district projects. Enclosed is a copy of the Environmental Assessment for your review and any comments. Public notice of this proposed action will be published in the Eugene Register Guard on February 26, 2003. The EA will also be available on the internet at <http://www.edo.or.blm.gov/nepa>. The public comment period will end on March 28, 2003. Please submit comments to me at the district office, by mail or by e-mail at OR090mb@or.blm.gov by close of business (4:15 p.m.) on or prior to March 28, 2003. If you have any questions concerning this proposal, please feel free to call Don Wilbur at 683-6994.

Comments, including names and street addresses of respondents, will be available for public review at the district office, 2890 Chad Drive, Eugene, Oregon during regular business hours (7:45 a.m. to 4:15 p.m.), Monday through Friday, except holidays, and may be published as part of the EA or other related documents. Individual respondents may request confidentiality. If you wish to withhold your name or street address from public review or from disclosure under the Freedom of Information Act, you must state this prominently at the beginning of your written comment. Such requests will be honored to the extent allowed by law. All submissions from organizations or businesses and from individuals identifying themselves as representatives or officials of organizations or businesses, will be made available for public inspection in their entirety.

Sincerely,

Emily Rice, Field Manager
Upper Willamette Resource Area

Enclosure

**LOST GUILLEY
Timber Sale**

**Upper Willamette Resource Area
BLM Eugene District**

ENVIRONMENTAL ASSESSMENT
Environmental Assessment No. 090 EA 03 - 08

February 26, 2003

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Lost Guiley Timber Harvest
Upper Willamette Resource Area
BLM Eugene District

Environmental Assessment
Environmental Assessment No. OR 090 EA 03- 08

1.0 PURPOSE AND NEED FOR ACTION

The Bureau of Land Management (BLM) proposes to implement a commercial thinning project in the Lost Creek Watershed. The proposed action is within the Matrix and Riparian Reserves (RR) land use allocations. The Area of analysis, for the purposes of this environmental document, is approximately 1000 acres of BLM lands located in T. 20 S., R. 1 W., sections 27 and 35, Will. Meridian.

The underlying need for this action is based on a review of timber stand exams, which indicates that the current stand conditions would benefit from thinning and density management. This stand shows an excessive stocking density, which causes reduced stand vigor and tree growth. Harvest treatments would reduce density, which would increase vigor, growth rates, wind firmness and root structure. Creation of down logs and snags where they are below desired levels would improve habitat for riparian and upland wildlife species.

The purpose of this action is to implement the stated objectives, of this proposal, on Matrix lands as described in the *Eugene District ROD/RMP* (USDI 1995, Appendix E, p. 200). Silvicultural practices that would apply on Matrix Areas are: 1) harvest anticipated mortality of small trees as the stand develops, 2) increase the proportion of merchantable volume in the stand, 3) maintain good crown ratios and stable wind-firm trees, 4) accelerate development of trees that can later provide large-diameter snags and down logs, 5) produce larger more valuable logs, 6) manage species composition and, 7) promote development of desired understory vegetation.

The purpose of this action is to also implement Riparian Reserve (RR) and Aquatic Conservation Strategy (ACS) objectives. These objectives, which are described in the *Northwest Forest Plan*, strive to restore and maintain the ecological health of watersheds and aquatic ecosystems on public lands. The *Eugene District ROD/RMP* (USDI 1995, p.24) states that BLM should, "apply silvicultural practices for Riparian Reserves to control stocking, reestablish and manage stands, and acquire desired vegetation characteristics needed to attain Aquatic Conservation Strategy Objectives." *The Standards and Guidelines for Management of Habitat for Late-Successional and Old-Growth Forest Related Species Within the Range of the Northern Spotted Owl* (April 1994) says, "Active silvicultural programs will be necessary to restore large conifers in Riparian Reserves. Appropriate practices may include . . . thinning densely-stocked young stands to encourage development of large conifers . . ." (*Northwest Forest Plan*,B-31).

Objectives of this action would:

- \$ Thin an estimated 660 acres of 40 to 60 year-old timber in T. 20S., R. 01 W., Sec. 27 and 35, in both Matrix and Riparian Reserves.
- \$ Construct and decommission a minimum amount of temporary roads to harvest timber.
- \$ Accelerate the development of late-seral characteristics, including the development of snags and large woody debris, within the Riparian Reserves.

1.1 Conformance

This environmental assessment (EA) is tiered to the *Record of Decision (ROD) for Amendments to Forest Service and Bureau of Land Management Planning Documents within the Range of the Northern Spotted Owl*, April 1994, and the *Eugene District Record of Decision and Resource Management Plan (RMP)*, June 1995 as amended by the *Record of Decision (ROD) for Amendments to the Survey & Manage, Protection Buffer, and other Mitigation Measures Standards and Guidelines*, January 2001. Actions described in this EA are in conformance with the Aquatic Conservation Strategy (ACS) Objectives listed on page B-11 of the *Northwest Forest Plan (NFP)*, and in **Appendix D** of this Environmental Assessment. The RMP makes land use allocations and allows for density management thinning in the Riparian Reserves land use allocation (LUA), and thinning in the Matrix LUA to acquire desired vegetative and structural characteristics. These documents are available for review at the Eugene District Office of the BLM, Eugene, Oregon or on the internet at <http://www.or.blm.gov/nwfp.htm>.

The Analysis File contains additional information used by the interdisciplinary team (IDT) to analyze impacts and alternatives and is hereby incorporated by reference.

1.2 Monitoring

Monitoring guidelines are established in the 1995 RMP/ROD, Appendix D, and the 1994 *Northwest Forest Plan Standards and Guidelines*, pp. E-1 to E-10.

1.3 Scoping

The scoping process identified both agency and public concerns relating to the proposed projects, and defined the issues and alternatives that would be examined in detail in the Environmental Assessment. The public was informed of the planned environmental assessment through letters to those on the Resource Area's mailing list, and to those receiving the Eugene District Planning Update, "The Eye to the Future."

1.4 Issues

The Interdisciplinary Team (ID Team) brought forward concerns related to resources that had the potential of being affected by the proposed actions. All resource concerns were mitigated through the implementation of "Design Features" in **Appendix A**, and the application of Best Management Practices listed in the Eugene District ROD/RMP (Appendix C), so that none of the concerns were elevated to issues. The Critical Elements of the Human Environment were considered and are summarized in the Environmental Consequences Section 4.0.

2.0 ALTERNATIVES INCLUDING THE PROPOSED ACTION

This section describes alternatives identified by the interdisciplinary team, alternatives eliminated from detailed study, and comparison of alternatives. Design features associated with these alternatives can be found in the appendices: **Appendix A** for Project Design Features, **Appendix B** for Harvest Area Details and Road Construction and Closure Summary, **Appendix C** for Maps of Proposed Harvest Areas, and **Appendix D** for Analysis of Alternatives by ACS Objectives.

2.1 Alternative I: No Action

2.1.1 Timber Harvest Activity in the Matrix

No thinning would occur within the analysis area at this time. These stands would continue to develop along current trajectories.

2.1.2 Density Management within Riparian Reserves

No density management activities would occur within the analysis area at this time. These stands would continue to develop along current trajectories in a somewhat stagnate state. There would be very little increase in growth in the understory and overstory of the Riparian Reserves. Development of late seral characteristics would progress at a slower rate.

2.1.3 Roads

Under this alternative, no temporary road construction, or improvements to the existing road system would occur.

2.2 Alternative II: Proposed Action

2.2.1 Timber Harvest Activity in the Matrix

This alternative consists of three commercial thinning Areas (A, B and C) of approximately 476 acres of Douglas-fir dominated uplands. Thinning these three proposed areas would improve tree vigor, growth rates, wind firmness and root structure. The proposed thinning treatment would increase the proportion of merchantable volume in the stand through time and capture anticipated mortality from smaller trees as the stand continues to develop.

Area A (213 acres): The treatment would reduce the number of trees from approximately 280–290 trees per acre to 85–95 trees per acre with an average spacing of 25 feet. Trees selected for harvest would be the suppressed, intermediate, and co-dominant conifer trees. Each species including Douglas-fir and western hemlock shall have equal preference for retention, providing that selected trees are well formed and do not have evidence of damage or disease. All cedar and pacific yew trees would be reserved, except where necessary to accommodate safety and logging systems.

Area B (134 acres): This is a second entry thinning. This stand has a larger average tree size (15" DBH), larger crown width and crown ratio, and fewer understory trees than Areas "A" and "C." The proposed treatment would reduce the number of trees from approximately 120–130 trees per acre to 50 trees per acre with an average spacing of 30 feet. Thinning this stand to 50 trees per acre would allow the remaining dominant stand to grow with less competition from co-dominant layer.

Growth models were run retaining 80 trees per acre. Analysis shows a light thinning on a second entry thin would not stimulate growth as well as retaining 50 trees per acre. Trees selected for harvest would be intermediate, and some co-dominant conifer trees. Each species, including Douglas-fir and western hemlock shall have equal preference providing that selected trees are well formed and do not have evidence of damage or disease. All cedar and pacific yew trees would be reserved, except where necessary to accommodate safety and logging systems.

Area C (129 acres): The treatment would reduce the number of trees from approximately 200–210 trees per acre to 85–95 trees per acre. Trees selected for harvest would be the suppressed, intermediate, and co-dominant conifer trees. Each species, including Douglas-fir and western hemlock shall have equal preference providing that selected trees are well formed and do not have evidence of damage or disease. All cedar and pacific yew trees would be reserved, except where necessary to accommodate safety and logging systems.

Thinning would be accomplished with a combination of cable, ground-based and helicopter yarding systems. Cable harvest systems would be utilized on approximately 291 acres; ground-based systems would be utilized on approximately 30 acres; and helicopter yarding would be utilized on approximately 155 acres. See **Appendix A** for Design Features that address various harvesting systems, and silvicultural prescription. See **Appendix B** for Harvest Area Details, Road Construction, and Closure Summary.

2.2.2 Density Management within Riparian Reserves

The density management prescription in the RR is designed to promote forest biodiversity and

abundance of understory plants in young-growth stands. Spacing guidelines would be used to expedite the growth of the remaining trees, which would improve the long-term potential for coarse woody debris and snag components.

This alternative proposes density management in 182 acres of Riparian Reserve. The stand age for Areas “A” and “B” ranges 50-60 years old and Area C is 40 - 50 years old. The marking prescription and thinning guidelines for the Riparian Reserve density management would be different in Area A from the treatment Area located in the Matrix. Areas B and C would have the same prescription as the Matrix using cable yarding systems. Yarding corridors would produce “gaps” creating structural diversity. Riparian Reserve treatment would be a combination of thinning from below and spacing, removing trees in the suppressed and intermediate canopy classes.

Treatment on Area “A” would reduce the number of trees from approximately 280-290 trees per acre to 60-65 trees per acre with an average spacing of 30 feet. The larger trees would be reserved. Douglas-fir and western hemlock less than 22 inches diameter at breast height (DBH) would be selected for removal. All hardwoods, cedar, and pacific yew trees would be reserved except where necessary to accommodate safety and logging systems.

Perennial and intermittent non-fish bearing streams would retain the interim Riparian Reserve width of one site potential tree height (180 feet slope distance) on each side of the stream channels.

Location of the Density Management in Riparian Reserves is shown on the maps in **Appendix C**. All designated density management Areas would have a riparian buffer width (no harvest zone) of approximately 75 feet from the stream bank.

Table 2.2.1 summarizes Alternative II.

Table 2.2.1

TYPE HARVEST	LAND USE ALLOCATION	PROPOSED ACRES TO BE HARVESTED	VOLUME (MMBF)
Density Mgt.	Riparian Reserves	182	3.7
Thinning	Matrix	476	7.8
TOTAL		658	11.5

MMBF - Million Board Feet

2.2.3 Roads

Table 2.2.3 summarizes the miles of road construction, improvements and decommissioning under this alternative. Existing permanent roads will have 9 culverts replaced and 4 new culverts added. The 9 replacement culverts are for undersized or failing culverts. The 4 new culverts deal with one stream crossing and the need for 3 additional cross drains. A list of new culverts and replacement culverts can be found in Appendix B, along with individual road treatment descriptions.

Table 2.2.3

HARVEST AREA	TEMPORARY NATIVE SURFACE ROAD CONSTRUCTION / *DECOM. (MILES)	IMPROVEMENT OF EXISTING ROCK ROADS (MILES)	EXISTING ROCKED ROAD BLOCKED (MILES)	ROADS *DECOM. (MILES)
A	0	0.60	0.65	0
B	0	0.95	0.40	0
C	*1.07	0	0	*1.07
Totals	1.07	1.55	1.05	1.07

***Decom** = Decommission: Roads to be blocked and treated as necessary to restore infiltration and hasten vegetative recovery after completion of timber sale contract. Roads would be closed and not require future maintenance.

2.2.4 Snag and Down Log Creation

Snags and down logs would be created in harvest Areas and adjacent riparian reserves that are deficient in these habitat components. These activities would occur two or more years after harvest activities. Two to five snags per acre would be created by chainsaw topping, girdling or blasting, and one to five downed logs per acre would be created by felling live trees with a chainsaw. The numbers of snags and down logs created would depend on levels of post-harvest windthrow. Live trees selected for snag and down log creation would vary in size and tree species.

2.3 Alternative III - No Riparian Thinning

2.3.1 Timber Harvest Activity in the Matrix

This action recommends a commercial thinning in approximately 475 acres of Matrix uplands. Silvicultural treatment would remain the same as the proposed action. Cable yarding would occur on approximately 291 acres, ground-based yarding on approximately 30 acres and helicopter yarding on approximately 154 acres.

2.3.2 Density Management within Riparian Reserves

There would be no density management in the Riparian Reserve. Left untreated the Riparian Reserve would continue to grow at a slower pace. Inputs of coarse woody debris and snags would be smaller in diameter and less able to persist through time. The under-story shrub layer would continue to decrease with less sunlight available for growth.

Table 2.3.1 summarizes Alternative III.

Table 2.3.1

TYPE HARVEST	LAND USE ALLOCATION	PROPOSED ACRES TO BE HARVESTED	VOLUME (MBF)
Density Mgt.	Riparian Reserves	0	0
Thinning	Matrix	475	7.8
TOTAL		475	7.8

2.3.3 Roads

Same as the proposed action.

2.3.4 Snag and Down Log Creation

Same as the proposed action.

2.4 Consistency with Aquatic Conservation Strategy Objectives

The intent of the Aquatic Conservation Strategy (ACS) is to maintain and restore aquatic habitats and the watershed functions and processes within the natural disturbance regime by prohibiting activities that retard or prevent attainment of ACS Objectives. The primary emphasis of the Standards and Guidelines for Riparian Reserves is restoration of the ecological processes and stream habitats that support riparian dependent organisms.

The following narratives briefly describe how the proposed action (alternative II), and alternative III would influence each ACS objective.

Aquatic Conservation Strategy Objective	How Project Meets Aquatic Conservation Strategy Objectives for Alternative II (Proposed Action)
1. Maintain and restore the distribution, diversity, and complexity of watershed and landscape-scale features to ensure protection of the aquatic systems to which species, populations, and communities are uniquely adapted.	Watershed and landscape scale features would be <u>maintained</u> at current levels and conditions into the foreseeable future. Creation of faster growing trees within the stream influence zone would be a long term <u>restoration</u> in the distribution, diversity, and complexity of large woody material introduced to aquatic systems in portions of watershed with potential benefits to species, populations, or communities.
2. Maintain and restore spatial and temporal connectivity within and between watersheds. Lateral, longitudinal, and drainage network connections include flood plains, wetlands, up slope Areas, headwater tributaries, and intact refugia. These network connections must provide chemically and physically unobstructed routes to Areas critical for fulfilling life history requirements of aquatic and riparian-dependent species.	The spatial and temporal connectivity between watersheds would be <u>maintained</u> and improved. Thinning the Riparian Reserves would increase the habitat complexity and accelerate the timeframe for attainment of late seral habitat characteristics. Long term habitat connectivity within these two sections of the watershed would be improved by the proposed action.
3. Maintain and restore the physical integrity of the aquatic system, including shorelines, banks, and bottom configurations.	Installation of a stream crossing on stream 10 would <u>restore</u> the stream to its natural channel. The physical integrity of the aquatic systems in the vicinity of the proposed treatment areas would be <u>maintained</u> by the Riparian Reserve network.
4. Maintain and restore water quality necessary to support healthy riparian, aquatic, and wetland ecosystems. Water quality must remain within the range that maintains the biological, physical, and chemical integrity of the system and benefits survival, growth, reproduction, and migration of individuals composing aquatic and riparian communities.	Use, maintenance, and improvements made to the existing permanent roads in the project area would <u>maintain</u> water quality. The proposed project is not likely to have any measurable effect on water temperatures, turbidity, or overall sediment loading within each respective sub-watershed. The design features incorporated with the proposed action are expected to maintain the elements outlined in ACS Objective 4.
5. Maintain and restore the sediment regime under which aquatic ecosystems evolved. Elements of the sediment regime include the timing, volume, rate, and character of sediment input, storage, and transport.	Replacing undersized and/or deteriorating stream crossings on the permanent road system would provide for the improved natural transport of sediment and woody material in the stream channels. Tillage of proposed temporary roads and skid trails and some existing skid trails would <u>restore</u> infiltration and hasten vegetative recovery on those acres. Design features would minimize sediment delivery to streams from near by harvest areas or roads. This action is expected to <u>maintain</u> and <u>restore</u> elements outlined in ACS Objective 5.
6. Maintain and restore in-stream flows sufficient to create and sustain riparian, aquatic, and wetland habitats and to retain patterns of sediment, nutrient, and wood routing. The timing, magnitude, duration, and spatial distribution of peak, high, and low flows must be protected.	Use of a 75 foot no-cut buffer adjacent to streams and maintenance of the permanent road system is expected to <u>maintain</u> the existing peak flows in the project Area.
7. Maintain and restore the timing, variability, and duration of flood plain inundation and water table elevation in meadows and wetlands.	Existing wetlands would be <u>maintained</u> . Wetlands greater than an acre would have a site tree distance no harvest buffer.
8. Maintain and restore the species composition and structural diversity of plant communities in riparian areas and wetlands to provide adequate summer and winter thermal regulation, nutrient filtering, appropriate rates of surface erosion, bank erosion, and channel migration and to supply amounts and distribution of coarse woody debris sufficient to sustain physical complexity and stability.	Species composition and structural diversity of riparian plant communities would be <u>maintained</u> for riparian vegetation and improved for the upland portions of the thinned Riparian Reserves. Thinning trees and creating snags and down logs within the Riparian Reserves would increase the habitat complexity and accelerate the timeframe for attainment of late seral habitat characteristics of the upland portion of the Riparian Reserves. No timber harvest would occur within 75 ft of streams, so riparian habitat components would not be directly affected by harvest activities. Timber harvest in the upland portion of the Riparian Reserves could result in changes to the microclimate conditions at the edges of riparian reserves, however, this would result in no substantive changes to riparian vegetation or other components of riparian habitat.

<p>9. Maintain and restore habitat to support well-distributed populations of native plant, invertebrate and vertebrate riparian-dependent species.</p>	<p>Habitat for riparian-dependent species would be <u>maintained</u>. No timber harvest would occur within 75 ft of streams, so riparian habitat components would not be directly affected by harvest activities. Habitat within the upland portions of the Riparian Reserves would be improved for many species by the creation of snag and down logs.</p>
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Aquatic Conservation Strategy Objective	How Aquatic Conservation Strategy Objectives for Alternative III are Met
1. Maintain and restore the distribution, diversity, and complexity of watershed and landscape-scale features to ensure protection of the aquatic systems to which species, populations, and communities are uniquely adapted.	Watershed and landscape scale features would be <u>maintained</u> at current levels and condition changes trajectories. No change to aquatic dependent species, populations, or communities would occur.
2. Maintain and restore spatial and temporal connectivity within and between watersheds. Lateral, longitudinal, and drainage network connections include flood plains, wetlands, up slope Areas, headwater tributaries, and intact refugia. These network connections must provide chemically and physically unobstructed routes to Areas critical for fulfilling life history requirements of aquatic and riparian-dependent species.	Connectivity within and between watersheds would be <u>maintained</u> at current levels.
3. Maintain and restore the physical integrity of the aquatic system, including shorelines, banks, and bottom configurations.	One stream crossing would be added where there currently is none. This would <u>restore</u> the stream to its natural channel.
4. Maintain and restore water quality necessary to support healthy riparian, aquatic, and wetland ecosystems. Water quality must remain within the range that maintains the biological, physical, and chemical integrity of the system and benefits survival, growth, reproduction, and migration of individuals composing aquatic and riparian communities.	Use and maintenance of the existing permanent roads in the project Area would <u>maintain</u> water quality.
5. Maintain and restore the sediment regime under which aquatic ecosystems evolved. Elements of the sediment regime include the timing, volume, rate, and character of sediment input, storage, and transport.	Replacing undersized and/or deteriorating stream crossings on the permanent road system would provide for the improved transport of sediment and woody material in the stream channels. Tillage of existing and proposed temporary roads and skid trails would <u>restore</u> infiltration and hasten vegetative recovery on those acres.
6. Maintain and restore in-stream flows sufficient to create and sustain riparian, aquatic, and wetland habitats and to retain patterns of sediment, nutrient, and wood routing. The timing, magnitude, duration, and spatial distribution of peak, high, and low flows must be protected.	Use of a 75 foot no-cut buffer adjacent to streams and maintenance of the permanent road system is expected to <u>maintain</u> the existing peak flows in the project Area.
7. Maintain and restore the timing, variability, and duration of flood plain inundation and water table elevation in meadows and wetlands.	Existing wetlands would be <u>maintained</u> . Wetlands greater than an acre would have a site tree distance no-cut buffer.
8. Maintain and restore the species composition and structural diversity of plant communities in riparian areas and wetlands to provide adequate summer and winter thermal regulation, nutrient filtering, appropriate rates of surface erosion, bank erosion, and channel migration and to supply amounts and distribution of coarse woody debris sufficient to sustain physical complexity and stability.	Species composition and structural diversity of riparian plant communities would be <u>maintained</u> at current levels in the short term. Long term the composition and structure of these communities would continue on current trajectories.
9. Maintain and restore habitat to support well-distributed populations of native plant, invertebrate and vertebrate riparian-dependent species.	Vegetative habitat for riparian-dependent species would be <u>maintained</u> at current levels in the short term. Long term this habitat would continue on the current trajectory. Habitat within the upland portions of the Riparian Reserves would be improved for many species by the creation of snag and down logs.

2.5 Comparison of Alternatives

Table 2.5.1

ELEMENTS	ALT. I NO ACTION	ALT. II PROPOSED ACTION	ALT. III NO DENSITY MGT.
Density Management Acres (RR)	0	182	0
Thinning Harvest Acres (Matrix)	0	476	475
TOTAL ACRES HARVESTED	0	658	475
Miles of New Temporary Road Construction	0	1.07	1.07
Miles of Existing Rock Road Improvement	0	1.55	1.55
Existing Rock Road Blocked (miles)	0	1.05	1.05
Road Decom. (Miles)	0	1.07	1.07

3.0 AFFECTED ENVIRONMENTS

3.1 Vegetation

The project Areas A and C are both closed canopy Douglas-fir forests of approximately 40 to 60 years of age. There are minimal amounts of bigleaf maple, cottonwood, yew, alder and western red cedar. Stocking of the stand is a consistent, dense stand of Douglas-fir and western hemlock. Understory vegetation is minimal and mainly consists of vine maple, Sword fern, oxalis and salal. There are varying amounts of mistletoe in the western hemlock.

Area B was thinned 15 years ago to approximately 124 trees per acre. The understory developed with approximately 225 trees per acre of hemlock and cedar (1-3 inches in diameter), with salal, vine maple, and huckleberry. An increase in the live crown ratio of the overstory Douglas-fir trees suggests the canopy is now closing in. Currently, there is about 85 to 90% canopy closure.

Noxious Weeds

Small infestations of Scotch broom occur along the roads within the project Area.
(Please see **Appendix A** for Design Features for Weeds)

Special Status Plants

Protocol surveys for vascular plants found no Special Status Plants.

Protocol surveys for non-vascular plants included Special Status Species, none were found.

3.2 Threatened and Endangered Species

Bald Eagle (Threatened)

Suitable nesting habitat for bald eagles is mature forest within one mile of a lake, river or major tributary. There is no suitable nesting habitat for bald eagles within or adjacent to the project Area. Effects to this species will not be analyzed in this document.

Northern Spotted Owl (Threatened)

Suitable nesting habitat for this species is mature forest (generally greater than 80 years old) with high canopy cover, an open understory, large down logs and large snags. There is no suitable nesting habitat within the proposed project Area.

Dispersal habitat for spotted owls is generally defined as stands ranging from 40 to 79 years of age. Juvenile spotted owls use dispersal habitat to roost and forage in as they disperse from their natal Areas. Adults forage in dispersal habitat to support themselves and their young. The existing habitat is relatively low quality dispersal habitat because it lacks the structural components (i.e. snags, structurally complex understory, and larger trees) that provide high quality foraging opportunities. There are approximately 665 acres of dispersal habitat (480 acres of upland, 185 acres of riparian reserve) in Areas proposed for harvest under Alternative II and 475 acres of upland habitat proposed for harvest under Alternative III.

There are no spotted owl activity centers, Unmapped Late Successional Reserves, suitable habitat or designated Critical Habitat within 0.25 mile of the proposed harvest Areas. The closest known activity center is more than 0.7 miles from the proposed project Area. One hundred seventy eight acres of the proposed project Area (126 acres upland, 52 acres of riparian reserve) under Alternative II and 126 acres of proposed project Area under Alternative III are within the 1.2-mile Provincial Home Range of two spotted owl activity centers.

Approximately 850 snags were created two years ago in eight of the riparian reserves in section 27. These created snags represent an overwhelming majority of available snags within the proposed project Area. There are high levels of large down logs currently within the project Area. Almost all of these down logs are in an advanced state of decay (class 3-5).

3.3 Survey and Manage

The ROD for the *Supplemental Environmental Impact Statement Amending the Survey and Manage, Protection Buffer, and Other Mitigating Measures Standards and Guidelines* was signed January 2001 and management of Survey and Management species are grouped into six categories (A-F) which have different requirements for surveys and site management.

3.3.1 Mollusks

The proposed project Area is suitable habitat for one Survey and Manage mollusk species. Section 35 of the proposed project Area was surveyed for Crater Lake tightcoil (*Pristiloma arcticum crateris*) in the fall of 2002. No individuals of this species were located during these protocol surveys. Section 27 will be surveyed in the spring of 2003, before the Decision Record for this project is signed. The proposed action will be modified if the Crater Lake tightcoil are found. If no Crater Lake tightcoil are found during these surveys, effects to this species will not be analyzed in this document.

3.3.2 Red Tree Vole (*Arborimus longicaudus*)

The red tree vole is a Category C Survey and Manage mammal in the Upper Willamette Resource Area. The current survey protocol (Version 2.1; BLM Instruction Memorandum No. OR-2003-003) categorizes the Eugene District within the Northern Mesic Forest Distribution Zone. Under this protocol, surveys are not required in this zone if the proposed action is in a stand of merchantable conifers that is less than 16" dbh quadratic mean diameter (QMD). Stand data collected in 1999 shows that Section 27 of the proposed project Area had a QMD of 14.3" dbh and Section 35 had a QMD of 14.9" dbh. The proposed project Area is comprised of stands that are 40-60 years old. These stands do not fulfill the criteria requiring surveys under the current protocol. No surveys were conducted for red tree voles and effects to this species will not be analyzed in this document.

3.3.3 Great gray owl (*Strix nebulosa*)

The great gray owl is a Category C bird that does not yet require surveys under the ROD as no survey protocol has been finalized for this species. No surveys were conducted within the proposed project Area and effects to this species will not be analyzed in this document.

3.3.4 Fungi, Lichens, Bryophytes and Vascular Plants

The proposed project Area is suitable habitat for a number of Category A or C (requires pre-disturbance surveys) fungi, bryophyte, vascular plants, and lichen species included as part of protocol surveys done in 2002. No bryophytes, vascular plants, lichens or fungi species currently on Category List A and C were found. *Ramalina thrausta*, a lichen scheduled to be included on the Component A list October 1, 2003 was found in a Riparian Reserve in Area A. See the project file for the list of species included as part of the protocol surveys. Category B, D, E and F species do not require surveys but would be managed in accordance with protocol if found incidentally. *Cetrailia cetriones* (list E lichen) was found incidentally in Area C. Two sites of *Sparassis crispa* (List D fungi) were found incidentally in Area C

3.4 Soils

Current Condition

Historic logging with ground-based machines has reduced soil productivity through compaction and displacement of surface soils. This is particularly true in Section 35 where excavated skid trails and the planked road are still evident. Generally, advanced conifer regeneration is lacking along primary routes due to residual compaction. There are few signs of active erosion however. Currently, the total extent of compaction in either Section is well below the District's RMP Standard.

Description of Soils

Soils in the project Area were originally mapped by SCS as part of the Lane County Soil Survey published in 1987. The more extensive series identified in Section 27 include: Cumley, McCully, and a complex of Blachly and McCully. Kinney, Klickitat and Honeygrove occur in lesser amounts. The dominant series identified in Section 35 include: Kinney, Klickitat, and a complex of Blachly and McCully. Cumley is a minor component. Maps and more detailed descriptions of the series properties can be found in the Analysis File.

The mix of Blachly and McCully series occurs on gentle to moderate slopes. These clay loams are very similar. They are deep and productive. Heavy clay subsoils hold large amounts of moisture, which makes both soils particularly susceptible to deep compaction. Ground-based harvest is not recommended except where existing skid trails can be utilized because soils stay moist during the summer months, especially if the vegetation has been removed.

Cumley silty clay loam occurs on gentle topography and in low-lying areas adjacent to streams. This soil is deep and productive, and is also important to water supply. Slow permeability creates a high water table that makes this soil perennially too moist to permit ground-based operations without substantial compaction occurring. Cumley soils would not be impacted in Section 35 under this proposal. This soil along the west side of Section 27 would be harvested with helicopter and cable systems.

Klickitat stony loam was mapped on steeper slopes. Klickitat is typically deep, and moderately productive. Cobbles and stones make up 40 percent of the surface soil, and large stones can increase to greater than 55 percent with depth. Klickitat soils are suited to cable logging systems (rather than ground-based) to avoid compaction that cannot be ameliorated through tillage.

Kinney cobbly loams are deep, productive soils. Harvest can be conducted with either cable or ground-based systems. Ground-based harvest would be subject to the full set of Best Management Practices (BMP's) that form the protection strategy for soils when using surface methods.

Honeygrove silty clay loam is on toeslopes. Like Blachly and McCully series, a clayey subsoil with few coarse fragments results in moderately slow permeability and susceptibility to deep compaction. Areas that have Honeygrove soils would be harvested with helicopter.

3.5 Hydrology and Water Quality

Streams in Areas A and B are tributaries of Guiley Creek that flow into Lost Creek and streams in Area C are tributaries of Lost Creek. Locations and brief descriptions of the streams, wetlands, and springs in the project Area are found in the Analysis File. No issues with water quality (temperature, turbidity, or chemical contamination) have been identified.

The harvest Areas are at elevations in excess of 2,130 feet and are in the transient snow zone, and could be impacted by rain-on-snow events.

Field reconnaissance indicates that skid roads or railroad plank roads constructed during the past harvest of the Area in the late 1940s or early 1950s resulted in Areas of soil compaction. As a result, several wetlands near Area "C" were created or enlarged due to ground disturbance on sensitive soils. Past logging activities compacted and / or displaced soils in the vicinity of stream 50 in Harvest Area "C" and resulted in stream channel development where there originally had been no channel.

Potentially unstable steep headwall Areas were identified adjacent to streams on the west side of Area A. A steep escarpment associated with a large rotational landslide was identified in Area C. These Areas are shown on the hydrology maps in the Analysis File. Currently no water quality impairment has occurred recently at these sites.

In Area C, Stream 10 currently has no culvert where it meets Road No. 20-1-27 and drainage flows via the ditchline to the nearest adjacent culvert. One log culvert and several other undersized stream crossing culverts have been identified for replacement to reduce the risk of mass wasting.

3.6 Fisheries

The Area of the Lost Guiley Timber Sale falls within the Middle Fork Willamette/Lookout Point 5th field watershed. Two 6th field watersheds, Lost Creek and Lookout Reservoir, subdivide the 5th field watershed. Lost Creek flows northerly and discharges into the Middle Fork of the Willamette about 3 miles below Dexter Dam. Average annual precipitation is roughly 55 inches, which falls primarily between November and February. Average annual stream flow is approximately 146 cfs (cubic feet per second). Minimum and maximum flows are reported to range from roughly 5 cfs to 826 cfs, respectively.

Mainstem Lost Creek flows through a low gradient (<3%), slightly too moderately confined channel (BLM, 1997). Upper reaches of the mainstem and lower tributary reaches are typically

2% to 8% gradient. Headwaters of the mainstem and tributaries range from 8% to 21% for stream gradients. Mid- and upper-reaches of Lost Creek are moderately to well confined.

Fish found in the Lost Creek drainage include spring run chinook salmon (*Oncorhynchus tshawytscha*), a federally listed threatened species. Other species known to utilize the catchment include cutthroat trout, sculpin, dace, shiners, sandroller, and some sunfish in the lower reaches. The ODFW (Oregon Department of Fish and Wildlife) began stocking *Oncorhynchus* in the MF as far back as 1919. A fish hatchery still exists near Dexter Reservoir from which spring run Chinook salmon are released. Fish population surveys by ODFW and BLM have found spring run Chinook salmon up to about river mile 10. However, salmon found in the Lost Creek system are considered stray hatchery fish and no salmon have been found above river mile 4 in recent years (Ziller, pers. comm., 2002; Armantrout, pers. comm., 2002). Most tributaries and mainstem Lost Creek reaches below 25% gradient, and without barriers such as waterfalls or impassable culverts, are utilized by cutthroat trout. Some mid- to upper-reach tributaries possess isolated, resident populations of cutthroat trout.

Proposed Harvest Areas A and B are located approximately 4 miles above the confluence of Guiley Creek with Lost Creek (Lost Creek river mile 8) while Harvest Area C lies at approximately river mile 15, in the headwaters of Lost Creek. Streams in harvest Areas A and B are non fish-bearing due to a combination of reasons which include: insufficient water, steep gradients, lack of holding water, a series of fish barrier culverts and a waterfall downstream of the project Area. Streams 1, 7, and 14 are fish-bearing (cutthroat trout) in the northern most portion of Area C, roughly 1200 feet south of road 20-1-27. Beyond which insufficient flows, steepness, and waterfalls preclude further fish movement.

4.0 OTHER ENVIRONMENTAL EFFECTS COMMON TO ALL ACTION ALTERNATIVES

4.1 Unaffected Resources

The following either is not present or would not be affected by any of the alternatives: Areas of Critical Environmental Concerns, prime or unique farm lands, flood plains, solid or hazardous wastes, Wild and Scenic Rivers, Wilderness.

4.2 Wetlands

Since no ground disturbing activities would occur in meadows and wetlands, the hydrology in these sensitive Areas would be maintained in the current condition and ACS Objective 7 would be met.

4.3 Special Status Plants

No Special Status Plants were found in the project Area. There are no effects on Special Status Plants.

4.4 Northern Spotted Owls (Threatened)

A total of 658 acres of low quality dispersal habitat would be degraded in the short term (15-20 years) under Alternative 2. A total of approximately 178 acres of this habitat would be within two spotted owl Provincial Home Ranges. Immediately post harvest this habitat would still function as low quality dispersal habitat. The effects of Alternative 3 to Matrix lands are the same as for Alternative 2, except that a total of 475 acres of dispersal habitat would be degraded under Alternative 3. A total of approximately 126 acres of this habitat would be within two spotted owl Provincial Home Ranges. Immediately post harvest this habitat would still function as low quality dispersal habitat.

Short term, the quality of thinned dispersal habitat would decrease because the canopy closure would be reduced and the number and quality of down logs would be reduced by harvest activities. This could temporarily impair the ability of owls to disperse and/or forage successfully within the proposed project area. If the ability to forage successfully is compromised, it could limit the owl's ability to

reproduce within these two Home Ranges for an estimated 15-20 years. It is unknown to what degree, this habitat is currently utilized by spotted owls.

Long-term, habitat within the project area would improve in quality as a result of the proposed thinning under Alternative 2, especially within riparian reserves, which are not managed for timber production. While canopy closure is reduced, understory vegetation would be expected to increase in complexity. Existing understory trees would increase in size. Within 15-20 years the canopy would return to current levels, and the understory development would decrease. Trees in the thinned areas would increase in size more rapidly than in unthinned areas. Over time, the created snags and down logs would begin to decay, providing important habitat components for foraging owls. Larger trees in the project area, together with created snags and down logs and more developed understory, would result in improved dispersal habitat for spotted owls. Thinned riparian reserve areas would be expected to attain late seral stage characteristics and become suitable habitat for spotted owls more quickly than they would if they were not thinned.

The effects of Alternative 3 to Matrix lands are the same as for Alternative 2. Snags and down logs would be created in riparian areas, but no riparian reserve habitats would be thinned under Alternative 3. Under Alternative 3, the stand composition and structural diversity of 182 acres of riparian reserve stands within the proposed project area would continue on the current trajectories. This habitat would remain low quality dispersal habitat in the long term. It would take decades longer for these riparian areas to become suitable spotted owl habitat.

The Upper Willamette Resource Area has regeneration harvested 281 acres and thinned 340 acres in the Lost Creek watershed since the Northwest Forest Plan went into effect. In addition to the proposed project, an additional 1100 acres of thinning is planned in four spotted owl Provincial Home Ranges within the Lost Creek watershed over the next 5 years. These sales would be expected to degrade a maximum of 1008 acres of dispersal habitat in these four spotted owl Provincial Home Ranges. This, along with the expected timber harvest on adjacent private lands, could result in reduced reproduction by owls in these Home Ranges for an estimated 15-20 years after harvest. Long term, thinning dispersal habitat within these Home Ranges would be expected to have neutral effect or improve the quality of habitat within these Home Ranges.

4.5 Fisheries

Consultation with NOAA (National Oceanic and Atmospheric Administration) on fisheries for effects to listed fish species was initiated in December 2002 and finalized in January 2003. The alternatives were determined to be “may affect, not likely to adversely affect” actions upon ESA listed fish species.

4.6 American Indian Rights

No impacts on American Indian social, economic, or subsistence rights are anticipated. No impacts are anticipated on the American Indian Religious Freedom Act. Management action information was sent to the Confederated Tribes of the Grand Ronde, and Confederated Tribes of the Siletz.

4.7 Environmental Justice

To comply with Executive Order 12898 of February 11, 1994, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, the Bureau of Land Management, Eugene District, will ensure that the public, including minority communities and low income communities, have adequate access to public information relating to human health or environmental planning, regulations, and enforcement as required by law.

The District has not identified any environmental effects, including human health, economic and social effects of Federal actions, including effects on minority populations, low-income populations, and Native American tribes, in this analysis.

4.8 Invasive and Non-Native Species

Mitigation measures outline in Appendix A, Design Features, would reduce the spread of weed seeds into and around the project area. The reasonable cleaning of the logging and construction equipment, call for in the design features, would remove a large portion of any seed present. This would have a high probability of preventing or reducing the spread of weeds on BLM lands.

4.9 Solid Or Hazardous Materials

There are no hazardous materials issues in the proposed project Area.

4.10 Hydrology and Water Quality

Under all action alternatives, existing water quality would be protected. No changes in water turbidity or stream flow are anticipated with the use and maintenance of the permanent roads in the project Area. The permanent road system would receive a new layer of aggregate surfacing, and is on a regular maintenance schedule. Installation of one new stream crossing on Road No. 20-1-27 would divert existing ditchline flow into the natural channel of the stream. Replacement of 8 existing stream crossing, would reduce erosion and risk of mass wasting. Three cross-drains would be added on the permanent road system to reduce road related sediment delivery to adjacent streams. One existing cross drain would be replaced to avoid mass wasting or erosion at that location. Unstable stream headwalls (Area A) and on the rotational landslide escarpment (Area C) have been removed from harvest to reduce the risk of triggering landslides. Likewise, use of a 75-foot no-harvest zone adjacent to streams would prevent sedimentation from soil disturbance during harvest activities.

No new temporary stream crossings are proposed and no impacts to water quality from new road construction are expected.

There would be no detectable increase in stream temperatures as a result of timber harvest under any of the action alternatives. In preliminary research conducted by Samuel Chen (USFS – PNW Research Station – Density Management and Riparian Buffer Studies of Western Oregon, June 2002), there was no increase in temperature in streams where a 50 – 75 foot variable no-cut buffer was implemented adjacent to a thinning Area. Maintaining a 75-foot no-cut buffer under all the action alternatives is predicted to have no impact on stream temperatures.

Research is very limited on the effects on peak flows from alterations in canopy cover under different density management retention levels. These acres are all within the transient snow zone but no thinning would occur within 75 feet of any stream. This protective buffer in conjunction with stream crossing additions and upgrades are expected to maintain existing peak flows.

4.11 Cultural Resources

No cultural sites have been identified. The analysis file contains the cultural report.

5.0 LIST OF AGENCIES AND PERSONS CONSULTED

This Environmental Analysis is being mailed to the following members of the public or organizations that have requested to be on the mailing list:

John Bianco
Oregon DEQ
Jim Goodpasture
Pam Hewitt
Charles & Reida Kimmel
Lane County Land Management
Carol Logan, Kalapooya Sacred Circle
Alliance
Oregon Dept of Fish & Wildlife
Oregon Dept of Forestry
Oregon Natural Resources Council
The Pacific Rivers Council
John Poynter
Leroy Pruitt

Roseburg Forest Products Co.
Sierra Club - Many Rivers Group
Swanson Superior Forest Products Inc.
Craig Tupper
Jan Wroncy
American Lands Alliance
Kris and John Ward
Robert P Davison
Tom Stave, U of O Library
John Muir Project
James Johnston
Peter Saraceno

A summary was sent to those receiving the "Eugene BLM Planning and Project Focus," December 2002 (approximately 250 mailings; a complete listing is available at the Eugene District Office).

Maps of the Proposed Action were sent to the Confederated Tribes of the Grand Ronde and Confederated Tribes of Siletz in October 2002. No comments were received.

6.0 LIST OF PREPARERS

THE INTERDISCIPLINARY TEAM

NAME	TITLE	RESOURCE/ DISCIPLINE
Mark D'Aversa	Fisheries Biologist	Fisheries
Glen Gard	Natural Resource Protection Specialist	Hazardous Materials Coordinator
Christie Hardenbrook	Planning SCEP	EA Writer
Paula Larson	Wildlife Biologist	Wildlife
David Mattson	Engineering	Roads/Transportation
Cheshire Mayrsohn	Botanist	Botany
Michael Southard	Archaeologist	Cultural Resources
Kris Ward	Hydrologist	Water Resources
Rudy Wiedenbeck	Soil Scientist	Soils
Don Wilbur	Natural Resource Protection Specialist	Team Leader/ NEPA Coord.
Jill Williams	Forester	Silviculture
Jack Zwiesler	Forester	Logging Systems

DESIGN FEATURES COMMON TO ALL ACTION ALTERNATIVES

Design Features for Harvesting

1. Where necessary to protect residual trees, snags and down logs during yarding log lengths would be limited to 40 feet in length.
2. Directional falling and yarding would be utilized for the protection of retention trees, downed logs, snags, and reserve Areas.
3. One-end suspension of logs would be required wherever topography permits to reduce the potential for erosion and run-off during yarding. Intermediate supports may be required to accomplish this objective.
4. Yarding restriction during sap flow between April 1 and June 15.
5. Helicopter landings (log and service) would not be located within 200 feet of identified watercourses. Helicopter logging would be utilized in portions of harvest areas and all logs would be suspended free and clear of the ground and treetops enroute to the landing.
6. Ground-based yarding operations would only occur where designated (see Appendix C for map). Adherence to all of the following requirements for ground-based yarding systems would keep soil impacts/compaction within RMP standards:
 - Existing skid trails would be used wherever possible.
 - Designated skid trails would be preplanned to occupy less than 10% of the harvest area.
 - Trees would be felled to lead to skid trails and winching distances would be up to 100 feet. Distances between trails would be up to 200 feet where feasible.
 - Yarding would be restricted to seasonally dry periods when soil moisture content provides the most resistance to compaction, typically between 25 to 30%, as approved by the Authorized Officer in consultation with the Soil Scientist. This is usually July 1st through October 15th.
 - Till all compacted skid trails with an excavator to a depth of 24 inches, when soil moisture is appropriate (between 25 to 32%), as approved by the Authorized Officer in consultation with the Soil Scientist. Minimize damage to residual tree roots adjacent to trails. To reduce erosion and restore soil productivity, pull slash, logging debris and brush from the adjacent forest floor.
 - If tillage cannot be accomplished the same operating season. All skid trails and temporary native surface roads would be left in an erosion resistant condition and blocked prior to the onset of wet weather. This would include construction of drainage dips, water bars, lead off ditches, and barriers (rootwads or brush piles) to prevent vehicle access until final blockage and/or tilling.
7. Other methods of ground-based cutting (feller buncher, harvester processor, cut-to-length systems) may be used where slopes are less than 45% if approved by the Authorized Officer in consultation with the Soil Scientist.
 - Activity would be restricted to seasonally dry periods, same as for ground-based yarding.
 - Limit movement off of primary trails to a single pass.

- Harvester processors would be kept moving on top of slash whenever possible.
8. Retain all Class 3, 4 and 5 coarse woody debris (CWD) within the harvest areas on site. Minimize damage to coarse woody debris where possible. Place cable corridors on the landscape so as to minimize disturbance to CWD greater than 30 inches diameter where possible. CWD that presents a hazard to logging operations may be relocated within the project Area. Retain and minimize damage to existing stumps greater than three feet in height that are outside of cable corridors. These stumps are currently functioning ecologically as snags within this stand.
 9. Retain all existing snags that do not pose a safety hazard or an operational obstacle. Snags felled as danger trees would be retained on site as down logs.
 10. Retain all Pacific Yew trees, hardwoods and cedars in the Matrix and RR's except where necessary to accommodate safety and logging systems.
 11. Management activities would be altered according to RMP standards and guidelines and BLM policy if any cultural resources or Special Status Plants or Wildlife (including Threatened and Endangered, Survey and Manage or E-4 Special Provision species) are found in or affected by harvest or associated activities.
 12. The *Sparassis* sites near Spur D require a 60 foot no- entry buffer around it to protect large wood debris the *Sparassis* is dependent upon.
 13. In Harvest Area A *Ramalina* occurs in an Area that would require a one-site tree buffer.
 14. To prevent the spread of weed seed, the operator would be required to clean all logging and construction equipment prior to entry on BLM lands.
 - Cleaning is defined as removal of all dirt, grease, plant parts and material that may carry weed seed. Pressure washing is the suggested method of cleaning.
 - Only equipment inspected by the BLM would be allowed to operate in or near the project area. All subsequent move-ins of equipment shall require cleaning prior to entry on BLM lands.
 - Prior to initial and any subsequent move-ins, logging and construction equipment shall be available for BLM inspection at an agreed upon location off federal lands.
 - Logging and construction equipment will be visually inspected by designated BLM personnel, to verify that the equipment has been reasonably cleaned.

Additional Design Features for Riparian Reserves

15. No ground based yarding equipment would be allowed to enter the Riparian Reserve as designated on Exhibit Maps.
16. No helicopter landings would be used or constructed in Riparian Reserves.

17. No thinning would occur within one-site tree distance (180 feet) around wetlands greater than one acre. Machinery would not enter within 75 feet of wetlands less than an acre.
18. Protect created snags in the riparian reserves of section 27 from damage to the fullest extent possible.
19. To protect red-legged frog habitat and other aquatic resources, no timber harvest activities would occur within 75 feet of the aquatic vegetation around all ponds and pump channels.

Design Features for Road Construction, Road Improvements, and Road Decommissioning

20. Use of native surface roads would be limited to the dry season (generally between June 1 and October 15, subject to soil moisture restrictions). Water bars, drainage dips and/or lead off ditches may be required to create an erosion resistant condition on roads used for harvesting during seasonal shut down periods.
21. Where subgrade conditions warrant, till the compacted road surface. If closed roads are not tilled, construct drainage dips, water bars or lead-off ditches to direct surface water to the forest floor and otherwise leave the road in an erosion resistant condition. To block the road(s) and reduce erosion, pull slash, logging debris, and pull small diameter trees and brush from the adjacent forest floor onto the road surface. This addition of woody material would be distributed along the length of the road.
22. Construct earthen barricades with brush or slash additions to adequately restrict access to all vehicles.
23. Road Improvements:
 - Existing permanent roads may have culverts replaced or additional cross drains added where the road control is BLM's.
 - The existing Rd 19-2-24.1 Seg. U, which is BLM controlled, will have encroaching trees removed from the cut slope and fill slope. Trees to be removed will be within a posted right of way.
24. ODFW in-water guidelines would apply to all stream crossing and culvert work activities. Work times for the Lost Creek drainage are July 1 to October 15.

Design Features for Fuels Treatment

25. Tracked equipment (i.e. hydraulic excavator) would be restricted to travel only on all-weather gravel roadways so piling and subsequent burning and chunking (ideally with the excavator on site) can occur during wet winter months without causing soil displacement in the Area.
26. Slash cleanup and disposal will be restricted to within 25 feet of the roadway edge (approx. maximum boom length) to insure no tracked entry into the Area. Slash to be piled will be comprised of dead and downed woody material, both natural and activity-created. Excluded from piling will be large coarse woody debris (sound and rotten logs >20 in. diameter), root wads, and live vegetation.

27. On primary gravel roadways only, sound large coarse woody logs, activity-created, and root wads will be lifted and placed in the area at maximum boom length to eliminate roadside high-intensity heat sources. Rotten large coarse woody logs (established) will be left in place. Ideally, roadside piles will not be utilized for wildlife habitat as unburned piles would compromise the objective of securing safer access and egress for the public and firefighting resources should a fire occur within the project Area.
28. Piles and fuel concentrations on temporary roads and landings that are not designated for excavator cleanup would be covered during the summer months and burned in the late fall (normally November and December) when fire season has ended and soil and duff moistures are high, but before conditions become too wet to insure adequate fuel consumption.

Design Features for Cultural Resources

29. In order to avoid potential damage to the remnants of the Guiley creek Plank Road, during timber harvest, a buffer of 25 feet minimum would be placed around extant structures during falling and yarding.

EXISTING CONDITIONS

Harvest Area	Avg. DBH (inches)	Trees/acre	Curtis Relative Density	Total Basal Area Acre	Volume/Acre MBF (remaining)
A	13	288	81	305	56
B	15	125	45	180	39
C	14	204	64	250	50
Riparian Reserve in A	13	288	81	305	56

HARVEST AREA DETAILS FOR ALTERNATIVE II Proposed Action

Harvest Area	Land Use Allocation (Acres)	Volume/Acre (MBF/Acre)	Harvest Volume (MMBF)	Treatment Type	Harvest System & Acres	Average Timber Age
A	Matrix	20	4.3	Commercial Thinning	Cable – 59 Helo - 154	50
A	RR	29	2.3	Density Mgt.	Cable – 23 Helo - 56	50
B	Matrix	12	2.2	Commercial Thinning	Cable –154 Grnd. Base –30	50
B	RR	12	.5	Density Mgt.	Cable – 24 *Grnd. Base - 17	50
C	Matrix	14	1.4	Commercial Thinning	Cable – 98 Helo – 1	41
C	RR	14	1.9	Density Mgt.	Cable – 55 Helo - 7	41
Total			11.6		678	

*Equipment would not be entering Riparian Reserve.

RR = Riparian Reserve
Matrix = Land Use Allocation
Cable = Cable Yarding

Grnd. Base = Ground Base yarding
Helo = Helicopter yarding.

ALTERNATIVE II- POST TREATMENT
(Estimated)

Harvest Area	Avg DBH (inches)	Trees/acre	Curtis Relative Density	Total Basal Area (acre)	Volume/Acre MBF (remaining)
A	18	95	40	169	36
B	21	50	26	118	27
C	18	92	38	160	35
Riparian Reserve In "A"	18	65	29	125	26

HARVEST AREA DETAILS FOR ALTERNATIVE III

Harvest Area	Matrix Acres	Harvest System Matrix Acres	Harvest Vol. Matrix MMBF
A	213	Cable - 59 Helo - 154	4.4
B	134	Cable - 134	1.6
C	128	Grnd. Base - 30 Cable - 98	1.8
Total	475	475	7.8

Matrix = Land Use Allocation

Grnd. Base = Ground Base Yarding

Helo = Helicopter Yarding

Cable = Cable Yarding

ALTERNATIVE III- POST TREATMENT
(Estimated)

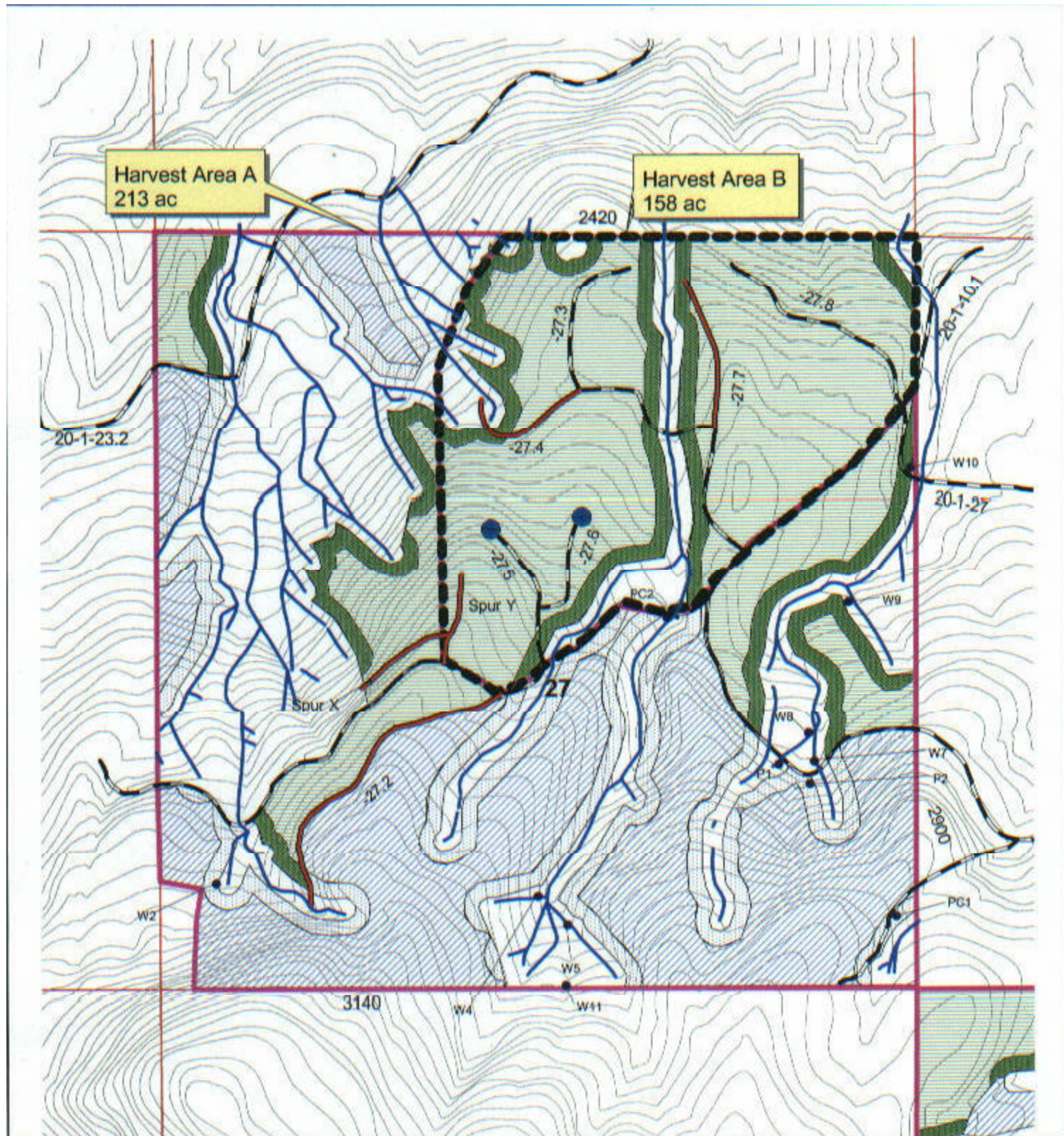
Harvest Area	Avg DBH (inches)	Trees/acre	Curtis Relative Density	Total Basal Area (acre)	Volume/Acre MBF Remaining
A	18	95	40	169	36
B	21	50	26	118	27
C	18	92	38	160	35

**ROAD CONSTRUCTION, CLOSURE SUMMARY, and CULVERT REPLACEMENT
FOR ALTERNATIVE II & III**

Harvest Area & Road Numbers	Existing Rocked Road	New Temporary Spur Roads (miles)	Improvement of Existing Rock Roads (Miles)	Existing Rocked Roads Blocked (Miles)	Roads *Decom. (Miles)	# Culverts Replaced
AREA "A"						
Spur X	Yes	0	.10	.10	0	
20-1-27.2	Yes	0	.45	.50	0	
20-1-10.1	Yes	0	0	0	0	Replace - 2
20-1-27	Yes	0	0	0	0	New - 1
AREA "B"						
Spur Y	Yes	0	.05	.05	0	
20-1-27.4	Yes	0	0	.21	0	
20-1-27.7	Yes	0	0	.19	0	
19-2-24.1	Yes	0	.95	0	0	Replace - 3
AREA "C"						
Spur A		.09	0	0	.09	
Spur B		.21	0	0	.21	
Spur C		.10	0	0	.10	
Spur D		.29	0	0	.29	
Spur E		.19	0	0	.19	
Spur F		.19	0	0	.19	
20-1-10.1	Yes	0	0	0	0	Replace - 2 New - 1
20-1-27	Yes	0	0	0	0	Replace - 2 New - 2
Totals	2.00	1.07	1.55	1.05	1.07	13

*Decom. = Decommission: Roads to be blocked and treated as necessary to restore infiltration and hasten vegetative recovery after completion of timber sale contract. Roads would be closed and not require future maintenance.

**MAPS AND LOCATION OF ROAD CONSTRUCTION AND HARVESTING ON
ALL ACTION ALTERNATIVES**

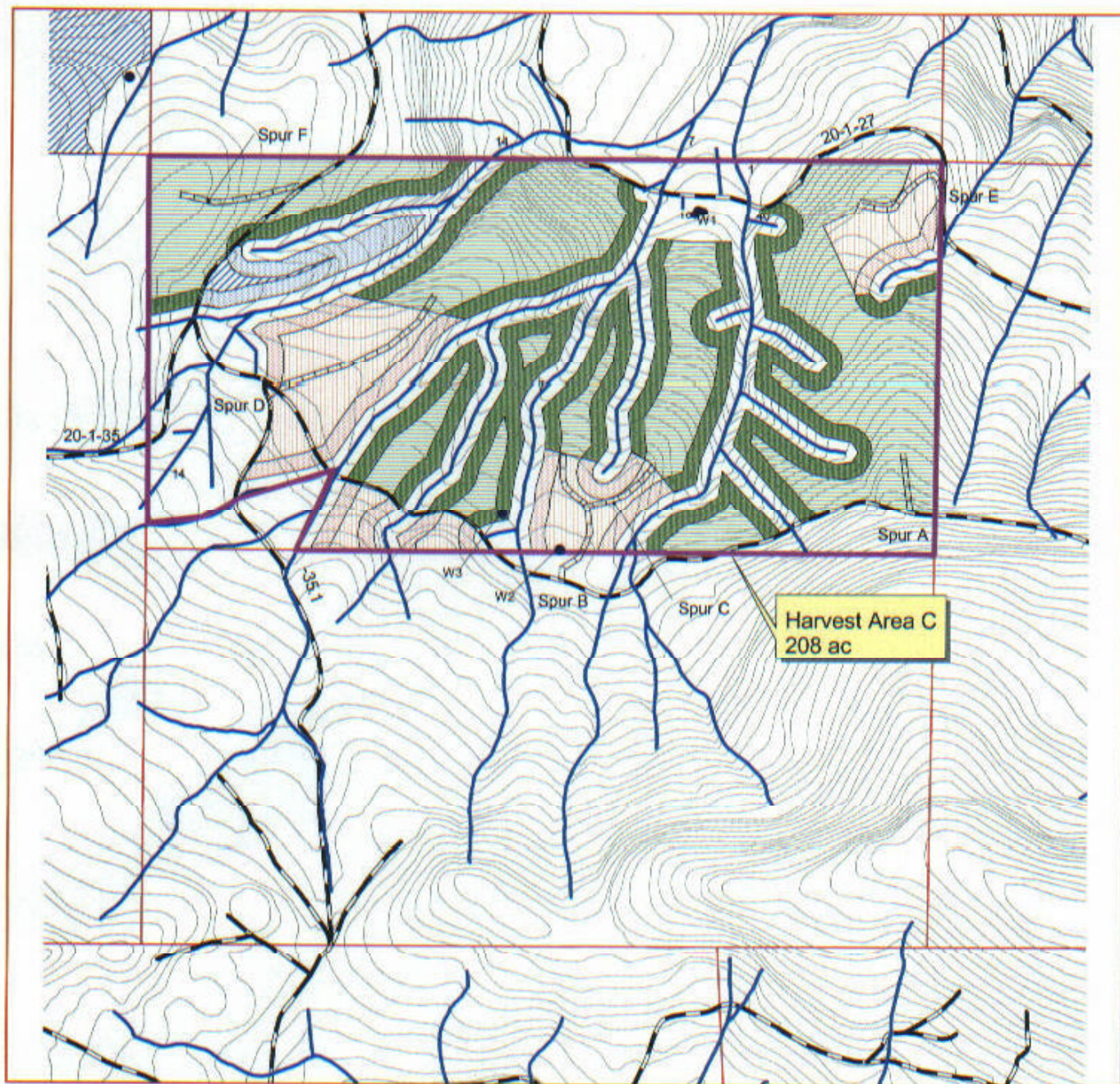


- (P)onds, (W)etlands, Pump chance (PC)
- Potential Helo Landing
- Stream
- Existing roads to be blocked & waterbarred
- Existing roads
- Contours (20')
- Harvest Area "B" Boundary
- Harvest Area "A" Boundary
- Riparian Reserve - Cable Yard
- Cable Yard
- Riparian Reserve - Helicopter Yard
- Helicopter Yard
- Property Lines

Alt.II - Proposed Action Lost Guiley Areas A & B T.20S., R.01W., Sec. 27

500 0 500 1000 Feet





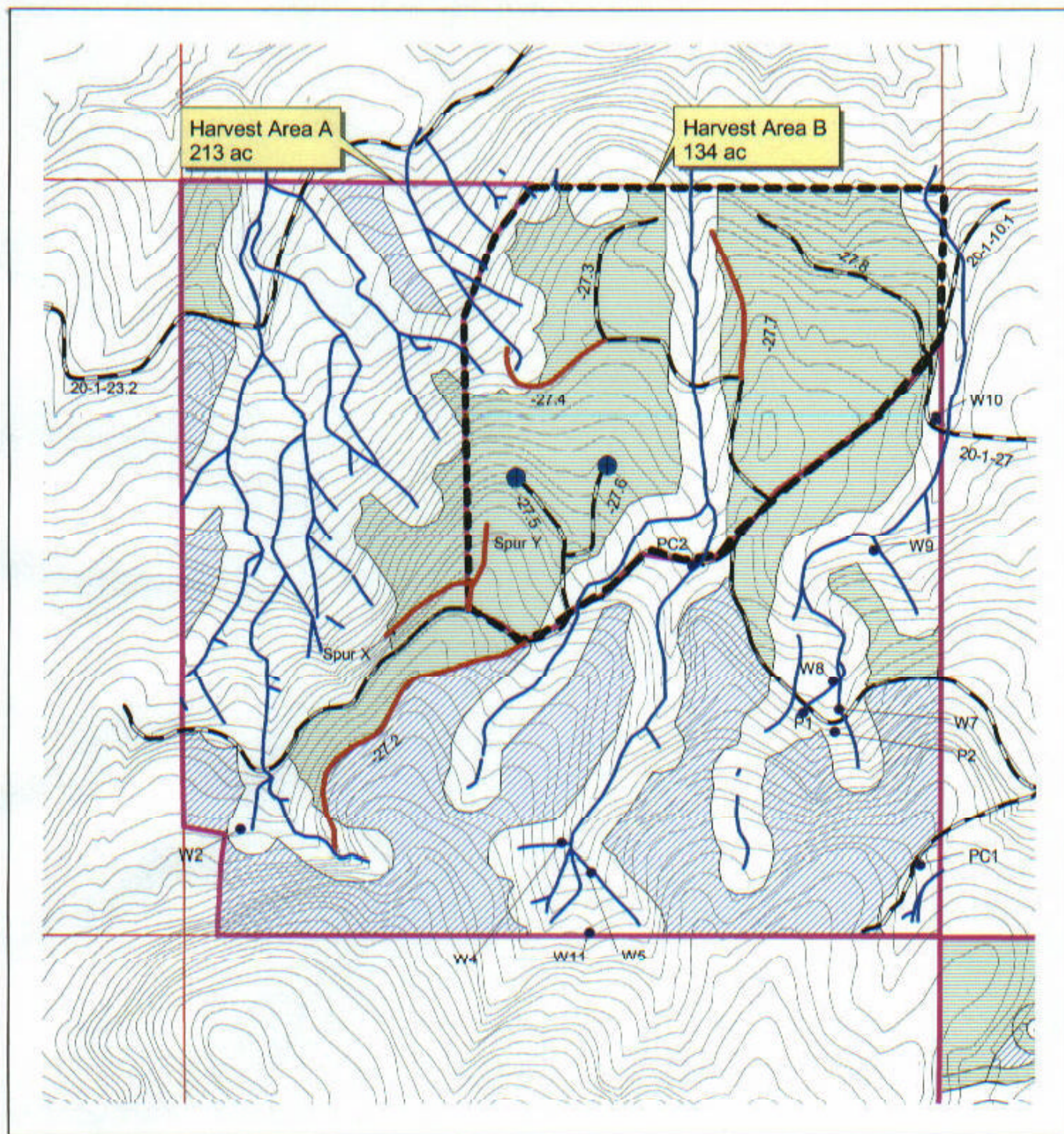
Alt. II - Proposed Action Lost Guiley - Area C T.20S., R.01W., Sec. 35

- (P)onds, (W)etlands, Pump chance (PC)
- Temporary Spur Roads
- Harvest Area "C" Boundary
- Streams
- Existing roads
- Contours (20')
- Riparian Reserve - Cable Yard
- Cable Yard
- Riparian Reserve - Tractor Yard
- Tractor Yard
- Riparian Reserve - Helicopter Yard
- Helicopter Yard
- Property Lines

500 0 500 1000 Feet

12/19/02





Alternative III - No Riparian Treatment Lost Guiley Areas A & B T.20S., R.01W., Sec. 27

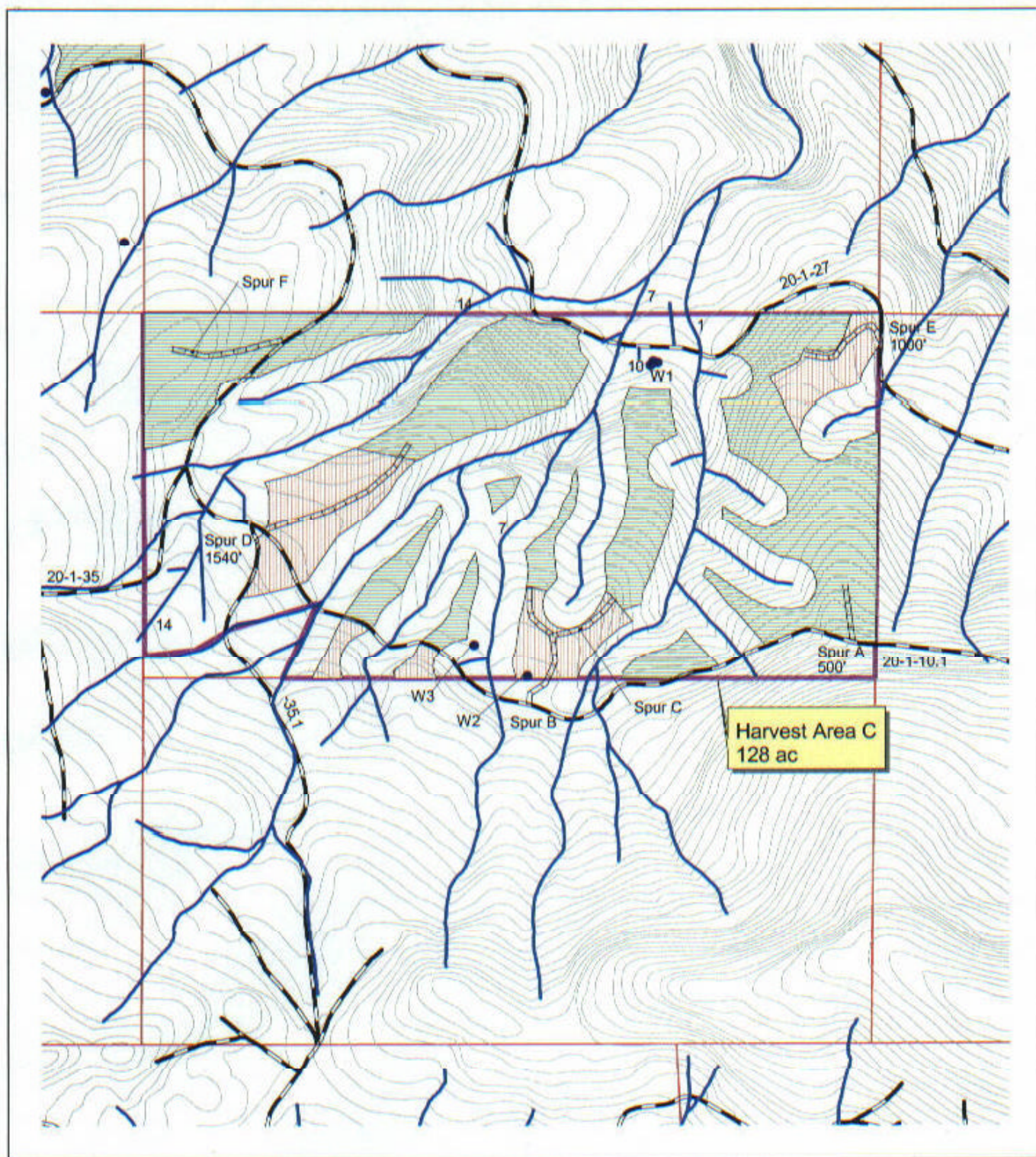
- Ponds_wetlands_pumpchance.shp
- Potential Helo Landing
- ▬ Streams
- ▬ Existing roads to be blocked & waterbarred
- ▬ Existing roads
- ▬ Contours (20')
- ▬ Harvest Area "B" Boundary
- ▬ Harvest Area "A" Boundary
- ▬ Cable Yard
- ▬ Helicopter Yard
- ▬ Property Lines

500 0 500 1000 Feet



12/18/02





Alternative III - No Riparian Treatment Lost Guiley - Area C T.20S., R.01W., Sec. 35

- (P)onds, (W)etlands, Pump chance (PC)
- Temporary Spur Roads
- Streams
- Existing roads
- Contours (20')
- Cable Yard
- Tractor Yard
- Harvest Area Boundary
- Property Lines

500 0 500 1000 Feet



12/19/02



UNITED STATES DEPARTMENT OF INTERIOR
BUREAU OF LAND MANAGEMENT
EUGENE DISTRICT OFFICE

**Finding of No Significant Impact
for
Lost Guiley Timber Sale**

Determination:

On the basis of the information contained in the attached Environmental Assessment, and all other information available to me, it is my determination that implementation of the proposed action or alternative will not have significant environmental impacts not already addressed in the *Record of Decision (ROD) for Amendments to Forest Service and Bureau of Land Management Planning Documents Within the Range of the Northern Spotted Owl (April 1994) and the Eugene District Record of Decision and Resource Management Plan (June 1995)*, and the Record of Decision for *Amendments to the Survey and Manage, Protection Buffer, and other Mitigation Measures Standards and Guidelines* (2001) with which this EA is in conformance, and does not, in and of itself, constitute a major federal action having significant effect on the quality of the human environment. Therefore, a new environmental impact statement or supplement to the existing environmental impact statement is not necessary and will not be prepared.

Field Manager, Upper Willamette Resource Area

Date